

RALOEV, K.

"Studies of the Sheep of Rila Monastery and Results from the First Experiment in Crossbreeding Them." p. 179, Izvestiia, Sofiya, Vol. 5, 1954

SO: East European Accessions List, Vol. 3, No. 9, September 1954, Lib. of Congress

RALCHEV, A.

The water-physical properties of some soils in the
Northwestern Bulgaria. Izv Inst "Nikola Pushkarov"
no.3:103-122 '62.

J

Country : USSR
Category : Soil Science. Physical and Chemical Properties
of Soil.
Abs. Jour.: Raf. Zhur.-Biologiya No. 11, 1958. No. 48617
Author : Hal'chenko, K.T.
Institute : Kirghiz Agricultural Institute
Title : The Effect of Leguminous-Grain Grass Mixtures on
Soil Structure in the Chuyskaya Valley
Orig. Pub.: Tr. Kirg. s.-kh. in-ta, 1956, vyp. 9, 11-16
Abstract : Where irrigation was used on the heavy loam dark
sierozem soils, the quantity of water-stable ag-
gregates less than 0.25 mm in diameter was 110%
under alfalfa, and 136-180% under alfalfa-grain
grass mixtures. The largest degree of structural
improvement action was seen in the following:
alfalfa plus Italian ryegrass, and alfalfa plus
Italian ryegrass plus meadow fescue.--V.A.Molodtsov

Card: 1/1

RALCHEV, D.; GEORGIEV, ZH.

"Less Accessible Forests In Our Country", P. 345. (GOSKO STOPANSTVO,
Vol. 10, No. 3, Oct. 1954, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4,
No. 6, June 1955, Uncl.

RALCHEV, D.

Ralchev, D. Methods and technique in preparing for reforestation and tasks of forest enterprises. p.337.

Vol. 11, no. 8, Oct. 1955 GORSKO STOPANSTVO Sofiya, Bulgaria

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 2
February, 1956

RALCHEV, D.

"Utilizing the abundant fertilization of oaks in order to aid their natural renewal.",
p 307, (GORSKO STOPANSTVO, Vol 8, #7, Sept 1952, Bulgaria)

East European Vol 2 #8
SO: Monthly List of ~~RSSSR~~ Accessions / Library of Congress, August 1953, Uncl.

RALCHEV, G.

BULGARIA/Chemical Technology - Chemical Products and Their
Applications in Oils, Waxes, Soap, Detergents.

I-10

APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R001

Flotation Reagents.

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2724
Author : Ralchev, G.
Inst : -
Title : Investigation of Sheep Wool Fat with the View of Its
Industrial Utilization.
Orig Pub : Leka promishlenost, 1956, 5, No 10, 42

Abstract : It was found that fat, obtained from dry, unwashed wool
of south Bulgarian breeds of sheep, with a yield of 8.34-
12.80%, has a d 0.920- 0.938, MP 32-49°, acid value (AV)
20.51-22.5, oleic acid (I) content 9.57-11.31%, saponifi-
cation value (SV) 83.24-103.68, iodine value (IV) 26.97-
31.14, unsapofifiabiles (U) 30.12-38.01%. Wool fat of
sheep developed by crossing these breeds with Merino
(yield 15.8-16.11%) has a d 0.938-0.940, MP 37-46°,

MALCHEN, G.

MALCHEN, G. Studying the oil in sheep wool with regard to its industrial use. p. 42.

Vol. 5, No. 10, 1956.

LENA PCHINISHE OST.

TECHNOLOGY

Sofia, Bulgaria

So: East European Accession, Vol. 6, No. 3, March 1957

BALCHY, P.

"On calcination in boiling stratum of copper concentrate from the Rosen Concentration Plant."

p. 5. (Khimia i Industriia, Vol. 30, no. 1, 1958, Sofia, Bulgaria)

Monthly Index of East European Accessions (EMAL) 13, Vol. 7, No. 12, Dec 58

Diatr: 4E2c

Roasting of a copper concentrate in the concentration plant at Rosenak (Bulgaria) in a fluidized bed. Tsv. Tsvetkov and P. Balchov. *Khim. i Ind.* (Sofia) 30, No. 1, 5-8 (1958).—The concentrate analyzed in the dry state Cu/15.23, Fe/35.20, S/33.31, SiO₂/14.22, rest 1.04%. By trying out various temps. it was found that the best results were obtained at 700°. In actual plant runs one cannot keep the temp. so const., but it was found that at 600-700° over a time of 1-2 min. the desulfurization would be satisfactory for tech. purposes. One operates with an air excess of 10-20%, so that the flue gases will contain 10-12% SO₂. The unit described can handle in 24 hrs., 2.6-3 long tons/sq.m. If the air used is enriched with respect to O, one can increase the speed of the plant process by 8-9%, also burn off the last remainder of the S in the concentrate, so that 1.4% more SO₂ is produced. Werner Jacobson

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BS
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METEVA, Ia.; VASILEVA, T.; ROMANOV, M.; RALCHEVA, A.; MILOSHEVA, E.

Epidemic of serous meningitis and similar disease. Suvrem.
med., Sofia 6 no.11:46-51 1955.

1. Iz I detska gradska bolnitsa, Sofia. nauchen rukovoditel:
prof. Br. Ts. Bratanov.

(MENINGITIS, epidemiology,

serous, epidemic outbreak in Bulgaria. (Bul))

RALCHEVA, Ang.

Case report contributions to vitamin D2 poisoning. Suvr. med.
14 no.6:39-41 '63.

(VITAMIN D2)

BAL'CHUK, Nikolay Trefimovich, kandidat tekhnicheskikh nauk; LYUBOVSKIY, A.,
redakter; SHABAY, Ya., tekhnicheskij redakter.

[Steam heating systems using concrete panel heating] Parovye sistemy
otopleniya s greiushchimi betonnymi paneliami, Kiev, Gos. izd-vo lit-
ry po stroitel'stvu i arkhitekture USSR, 1955. 93 p. (MLBA 9:5)
(Radiant heating)

RALCHUK, N. T. Dr. Tech Sci — (diss) "Panel heating systems with increased parameters for heat conductance," Kiev, 1960, 27 pp, 200 cop. (Sci Res Institute of Sanitary Engineering and ~~Public Buildings~~ Arrangement of Public Buildings and Structures, Academy of Construction and Architecture USSR) (KL, 45-60, 124)

KAL'CHUK, N. I.
RAL'CHUK, Nikolay Trofimovich, kand.tekhn.nauk; ZAYCHENKO, R., red.;
IOAKIMIS, A., tekhn.red.

[Heat and ventilation in public buildings] Otoplenie i
ventilatsiia grazhdanskikh zdani. Kiev, Gos.izd-vo lit-ry po
stroit.i arkhitekt. USSR, 1957. 132 p. (MIRA 11:1)
(Heating) (Ventilation)

LOBAYEV, Boris Nikitich; RAL'CHUK, Nikolay Trofimovich; TUROVSKIY, B.
redaktor; YUNOVSKIY, Ye., tekhnicheskiy redaktor.

[Hot-water and steam heating of houses and public buildings].
Otoplenie zhilykh i obshchestvennykh zdaniy peregretoi vodoi i
parom. Kiev, Izd-vo Akad.arkhitektury Ukrainskoi SSR, 1955. 97 p;
(Hot-water heating) (Steam--heating) (MLRA 8:8)

RAL'CHUK, Nikolay Trofimovich; VOLOSHCHENKO, Z.N., ed.

[Panel heating of buildings] Panel'noe otoplenie zdani.
Kiev, Budivel'nyk, 1964. 164 p. (MIRA 17:11)

RAL'CHUK, N.T.

Nomograms for calculating concrete heating panels. Vol. 1
san.tekh. no.4:17-21 Ap '59. (MIRA 12:5)
(Heating) (Nomography (Mathematics))

LASTOVSKIY, Mikhail Sergeevich; RALDUGIN, Aleksandr Alekseyevich; SAPKOV,
G.N., inzhener, redaktor; BOBROVA, Ye.N., tekhnicheskii redaktor

[Telegraphic communication in railroad transportation] Telegrafnaya
svyaz' na zheleznodorozhnom transporte. Moskva, Gos. transp. zhel-
dvor. izd-vo, 1956. 419 p. (MLRA 10:2)

(Telegraph)

(Railroads--Communication systems)

BALDUGIN, A.A.

Key for separate starting of automatic answering devices.
Avtom., telem. i sviaz' 5 no.3:31 Mr '61. (MIRA 14:9)

1. Starshiy inzhener-inspektor magistral'nykh svyazey
TSentral'noy stantsii svyazi.
(Telegraph—Automatic systems)

RALDUGINA, A.N.

Effect of the condition of the draft of spinning machines on the unevenness and breakage of yarn. Sbor.nauch.-issl.rab.TTI no.12:289-294 '61. (MIRA 15:11)

1. Nachal'nitsa pryadil'nogo otdela Chimkentskogo tekstil'nogo kombinata.

(Spinning machinery)

BAIDUGINA, V.A.

New instructional pictures on geography. Geog. v shkole 25
no.6:80-81 N-D '62. (MIRA 15:12)
(Geography--Audio-visual aids)

DEMENT'YEV, G.P.; GLADKOV, N.A.; BALDUGINA, V.A., redaktor; MIRONTSEVA,
M.I., tekhnicheskii redaktor

[The protection and attraction of useful birds] Okhrana i privileche-
nie polesnykh ptits; ob'iasnitel'nyi tekst k tablitsam. Izd. 3-e.
Moskva, Gos. uchebno-pedagog. izd-vo Ministerstva prosveshcheniia
RSFSR, 1955. 32 p. (MIRA 9:10)
(Birds, Protection of)

Ralea, N.

The polarographic determination of cations in ammonium chloride-ammonia-Rochelle salt solutions. R. Cernătescu, M. Popa, R. Ralea, and I. Popescu (Chem. Inst. Acad. Sci. Inst. Acad. rep. populare România Filiala Inst. Studiilor cercetării științ., Ser. 1, 6, No. 3/4, 83-102(1955))

(French summary)---In $\text{NH}_4\text{Cl-NH}_3\text{-KNaC}_4\text{H}_4\text{O}_6\text{-4H}_2\text{O}$ solns. the following ions are deposited at the Hg electrode at the following potentials (v., satd. calomel electrode): Ag 0-0.2; Cu^{++} 0-0.1 and 0.2-0.4; Pb^{++} 0.22-0.4; Bi^{+++} 0.3-0.6; Cd^{++} 0.8-0.75; Sb^{+++} 0.7-1.2; Zn 1.3-1.45; Mn^{++} 1.6-1.7; As^{+++} 1.4 (1.5)-1.8. Fe^{+++} does not give a curve. In the presence of concd. gelatin (I) Bi gives a curve which rises gradually after 1.2 v., and As^{+++} gives a 2-wave curve (where the combined height of the 2 waves is proportional to the concn. of As). High gelatin concns. suppress the upper wave and so the latter is detd. in the absence of I or at low I concns. Fe^{+++} does not interfere with the Cu^{++} and Ag^+ curves. Cu and Pb give a continuous curve and cannot be sepd., but Cu, Cd, and Zn are sepd. with ease. Similarly Bi-Zn, Bi-Sb $^{+++}$, and Bi-Ag mixts. afforded good sepn., provided the concns. of I were low. Other systems sepd. polarographically were Ag-Pb, Bi-As, Cd-Cu-Zn, Zn-Sb, Zn-As, but not Sb-As.

Gary Gerard

PM

RALEA, R.; GIURGIU, Diana; BURLACU, Gh.

Influence of some substitutes from the aminocobalt complex ion on the reduction potential of the mercury electrode. Studii chim Iasi 14 no.1:75-92 '63.

1. Academia R.P.R. Filiala Iasi, Institutul de chimie "P.Poni", Sectia de chimia combinatiilor coordinative.

RALEA, R.; BURLACU, Gh.; GIURGIU, Diana

Oscillographic studies of gold and silver in complex media by the amalgam electrode. Studii chim Iasi 14 no.1:33-42 '63.

1. Filiala Iasi a Academiei R.P.R., Institutul de chimie "P.Poni", Sectia de chimia combinatiilor coordinative.

RALEA, R.

Chem

✓ Polarographic determination of nicotinamide alone and in the presence of nicotinic acid. Radu Cernătescu, Margareta Poni, and R. Ralea. *Acad. rep. populare Române (Iasi), Studii cercetări știin.* 4, No. 1-2, 117-24(1953).—The polarographic wave of nicotinamide starts at 1.6 v.; that of nicotinic acid, at about 1.2 v. If the soln. is made alk., the nicotinic acid wave will disappear and only the wave given by nicotinamide will be maintained; its height corresponds to the concn. In this way nicotinamide can be detd. in the presence of nicotinic acid. The method was verified up to a concn. of 0.005 g. per 1000 nicotinamide contained in a mixt. of alkali chloride. T. Z. Dénessy

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RALEA, Radu, prof.; BURLACU, Gh.

Polarographic and oscillographic studies in the field of mixed currents. II. On the reaction in the mercury electrode of the ion CrO_2^- in the presence of the ion S^{2-} . Studii chim Iasi 11 no.2: 193-204 '60.

1. Academia Republicii Populare Romine, Filiala Iasi, Institutul de chimie "Petru Poni." 2. Comitetul de redactie, "Studii si cercetari stiintifice, chimie" (Academia R.P.R., Filiala Iasi) (for Ralea).

(Ions) (Oxidation-reduction reaction)

RALEA, R.; MODREANU, F.

Colorimetric and polarographic methods for the determination of cobalt, and the indirect determination of potassium. In French. p. 31.

REVUE DE CHIMIE. JOURNAL OF CHEMISTRY. (Academia Republicii Populare Romine)
Bucuresti, Rumania. Vol. 3, no. 1, 1958.

Monthly List of East European Accessions (SEAI) IC, Vol. 3, no. 7, July 1959.

Uncl.

RALEA, R.

3

The polarographic determination of silver. Radu Cernăvescu, Margareta Poni, and R. Ralea. *Acad. rep. populare Române (Iasi), Studii cercetari chim.* 4, No. 1-2, 125-9 (1963).—A method based on the complex formed and deposited in a soln. of $\text{Na}_2\text{S}_2\text{O}_3$ in excess with Ag is described. The soln. contain for 1 l.: 0.05-0.5 mole-g. % thiosulfate, 0.1 mole-g. Na_2CO_3 , slightly alk. (pH ~8), and 0.2 g. gelatin. The calibration curve does not have coordinated origin but is represented by a straight line. Accordingly, the threshold heights become proportional to the concn. when the ordinate is subtracted from the origin, hence the straight line for the abscissa zero is detd. by extrapolation. By means of the calibration curve, the concns. of Ag ions by extrapolation can be directly detected, by comparison of the given thresholds through the solns. to be analyzed, by being careful to work under identical exptl. conditions as those of the calibration curve. T. Z. Dénessy

Chem

RALFA R.

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262. Polarographic determination of nicotinamide
alone and in mixtures with nicotinic acid. R.
Cernătescu, M. Poni and R. Raica (*Studii și Comunicări
Știin.*, 1953, 4 [1-4], 117-124; *Referenți Ză.
Khim.*, 1955, Abstr. No. 7,706).—In a supporting
electrolyte of 0.1 N NaCl or KCl soln., the polaro-
graphic wave of nicotinamide (I) occurs at ≈ -1.6
V, and that of nicotinic acid (II) at ≈ -1.2 V.
A mixture of I and II gives two well-defined waves
whose heights are not equal to the heights of the
waves obtained with the pure compounds. When
the soln. is made alkaline with KOH, the wave of
II disappears and that of I remains, and its height
corresponds to the concn. of I. The usual polaro-
graphic methods for the determination of II are
inaccurate in the presence of I. E. HAYES

MT

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Ralek, M.

CZECHOSLOVAKIA/Fitting Out of Laboratories. Instruments,
Their Theory, Construction and Use

II.

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4944

Author : Ralek, M., Novak, L.

Inst :

Title : Study of Electrode Processes at a Mercury Electrode
by Means of Sudden-Change Variations of Polarization
Voltage. II. Design of the Change-Over Switch.

Orig Pub : Sb. chekhosl. khim. robot, 1956, 21, No 1, 248-250

Abstract : See RZhKhim, 1956, 16522.

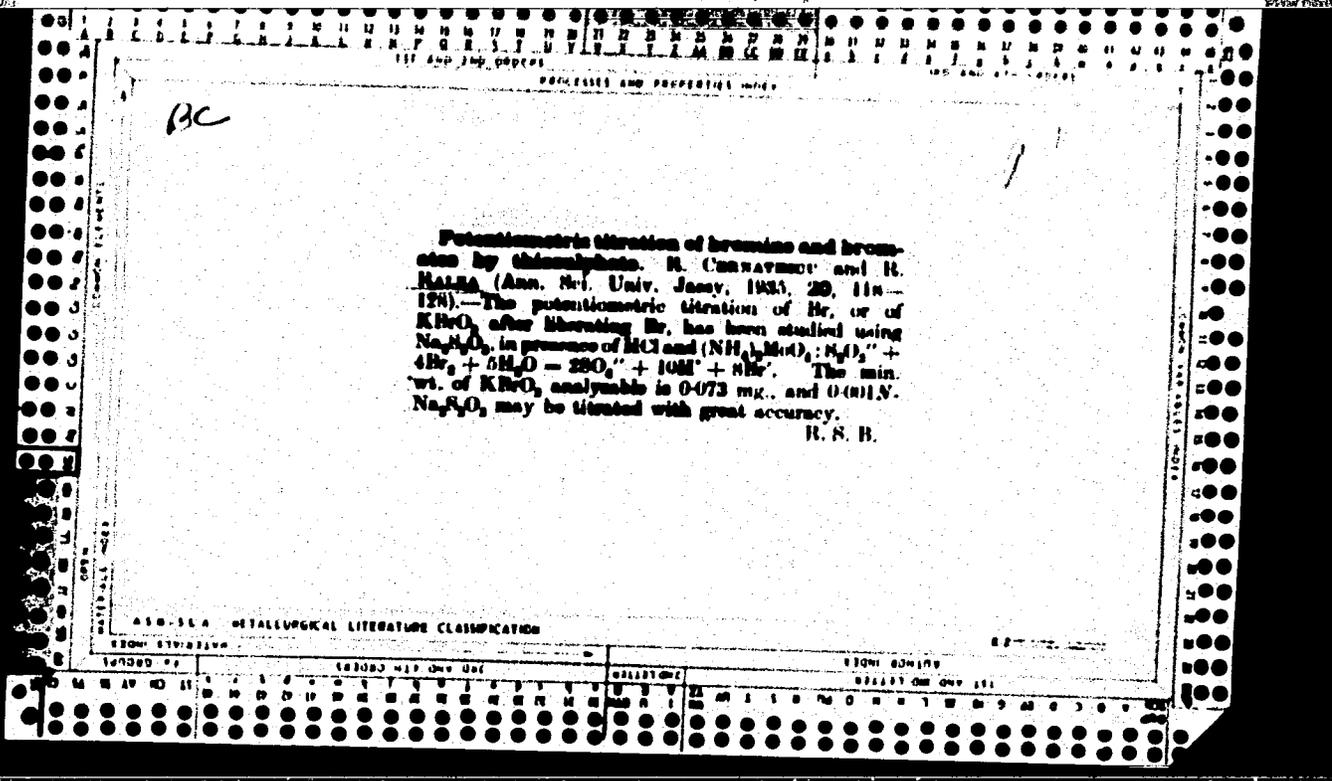
Card 1/1

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PROCESSES AND PROPERTIES INDEX

Reactions of methylene blue with metallic salts. .
 R. Ralea. *Ann. sti. univ. Jassy 26, Pt. I, Math., phys., chem.* 157-92 (1936); *cf. C. A.* 32, 7849P. Interaction of $2RClC_6H_4$ ($R = CaH_4NS$) with $HgCl_2$ in boiling H_2O gives the salt, $2RClHgI$, transformed by aq. $K_2S_2O_8$ into the *compd.*, $R_2SO_4HgI_2$. Methylene blue (I) is converted by $K_3Co(CN)_6$ and $K_3Co(NO_2)_6$, resp. into the substances $R_3Co(CN)_3$ and $R_3Co(NO_2)_3$. Excess of $K_3Co(CN)_6$ and I afford the salt, $R_3Co(CN)_3$, while NH_4CNS and $2RClC_6H_4$ yield the *compd.*, $R_3Co(SCN)_3$. $RCNS$ and $CdCl_2$ or $CdBr_2$, resp., yield the substances, $2RClC_6H_4$ (II) and $2RClC_6H_4Br_2$, which differ somewhat from those derived directly from the components. An excess of boiling aq. KI converts II into the substance, $2RI C_6H_4$, transformed by $HgCl_2$ into the product, $RI 2HgCl_2$, which is unchanged by $K_2S_2O_8$. Treatment of II with an equiv. of aq. KI gives the isomeric salt, $2RClC_6H_4$, which with $HgCl_2$ affords a green product, transformed by $K_2S_2O_8$ into the salt, $R_2SO_4HgI_2$. The constitution of the additive *compd.* is uncertain. B. C. P. A.

ALSO SEE METALLURGICAL LITERATURE CLASSIFICATION



RUMANIA / Physical Chemistry. Kinetics. Combustion. Explosions. Topochemistry. Catalysis. B-9

Abs Jour: Ref Zhur-Khimiya, No 8, 1959, 26481.

Author : Ralea, R. and Ungureanu, A.

Inst : Iasi University.

Title : The Co- and Cu-Catalyzed Oxidation of Sodium p-Aminosalicylate. A Kinetic Method for the Determination of Cu.

Orig Pub: An Stiint Univ Iasi, Sec I, 3, No 1-2, 315-324 (1957) (in French with Rumanian and Russian summaries).

Abstract: Intermediate compounds formed during the cobalt (II) and Cu(II) catalyzed oxidation of p-aminosalicylate of Na have been detected and isolated. The rate increase produced by Co(II) is so great as to make the determination of this ion not feasible. By

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RALEA, R

A micromethod for the determination of cobalt and copper with sodium p-aminosalicylate. Radu Ralea and Neculai Iorga. *Analele stinț. univ. "Al. I. Cuza" Iași, Sect. 1. [N.S.]*, 2, 211-26(1950). For Co: Into a 25-ml. flask, the following are needed in the given order: a few ml. of a soln. contg. 0.003-0.3 mg. Co; 5 ml. of 4M Na p-aminosalicylate (1); 10 ml. of 4M NaOH; and a few grains of Na₂O₂. After 10 min. add 0.75 ml. of 1M Na₂SO₄ and water to the mark. The brown color obtained is stable for 30 min. and can be read through a green filter. The calibration curve has an inflection point at 0.0021 mg./ml. Co. The Co can be detd. in the presence of Fe 1:40; Pb, Sn, V 1:1000; Mn 1:60; Cr 1:600; and Ni 1:70. Cu ions interfere. For Cu: Into a 25-ml. flask add the following in the given order: 0.008-0.8 mg. Cu; 5 ml. 1; 10 ml. NaOH; 0.15-0.20 g. Na₂O₂; and after 20 min. 1.25 ml. Na₂SO₄ and water to the mark. The brown color is stable for 30 min. and can be read through a green filter. Co and As ions interfere but Fe 1:40; Cu 1:60; and Pb, Sn 1:100 do not.

Martin Lipson

RALEA, Radu; MAYER, Adrian; BURLACU, George

Polarographic and oscillographic studies in the field of "mixed currents." I. On the reaction of mercury electrode of the CN^- ion in the presence of dissolved oxygen. Studii chimie Iasi 10 no.1: 1-12 '59. (RRAI 9:5)

1. Filiala Iasi a Academiei Republicii Populare Romine.
(Polarograph and polarography) (Oscillograph)
(Electrodes, Mercury) (Ions) (Oxygen) (Cyanides)

RALEA, Radu; MAYER, Adrian; OLARU, Maria

On the reduction of some chloronitrobenzene derivatives in mercury electrodes. Studii chimie Iasi 10 no.1:13-24 '59. (REAI 9:5)

1. Filiala Iasi a Academiei Republicii Populare Romine.
(Polarograph and polarography) (Oscillograph)
(Electrodes, Mercury) (Chloronitrobenzene)

RALEA, R. ; MODREAVU, F.

Colorimetric and polarographic methods of determining cobalt and potassium
p. 231.

STUDII SI CERCETARI STIINTIFICE. SHIME. Iasi, Rumania
Vol. 8, no. 1, 1959.

Monthly List of East European Accession (EEAI) LC, Vol. 8, no. 9 Sept. 1959

Uncl.

3
 /A kinetic method for the determination of copper by the catalytic oxidation of *p*-aminosalicylate with cobalt and copper ions. Radu Ralea and Olga Ungureanu. *Avancele stint. univ. "Al. I. Cuza" Iasi, Ser. I [R.S.]*, 3, 315-24(1957); cf. preceding abstr.—It was found that in the detn. of Cu and Co by Na *p*-aminosalicylate (Na-PAS) (cf. preceding abstr.), the metallic ion is a catalyst for the reaction between Na-PAS and Na₂O₂. The reaction passes through the intermediate complexes Cu(PAS)₂·3H₂O and Co(PAS)₂·H₂O, resp., which were eventually isolated as such and identified. The reaction is of the first order and by using the optical d., of the color obtained is proportional to the concn. of the metallic ion, the relation (1) $dD/dt = K(M)$, where *M* is Cu, Co can be obtained. It was found that the velocity of the reaction, *K*, is const. and independent of the optical d., and by plotting dD/dt to *M* a straight line is obtained. From (1) the relation (2) $Cu = (dD/dt)(1/K)$ can be derived, which is characteristic for the reaction under the given exptl. conditions. For anal. purposes, *K* is once detd. exptl. from relation (1) and the resp. graph is derived therefrom, and subsequently the concn. of *M* can be calcd. from (2), without the need of a calibration curve. The optical d. is obtained under the exptl. conditions outlined in the preceding abstr., *t* = 0 being the time of addn. of Na₂O₂. Actually this kinetic detn. is possible only with the Cu ion, as the *K* for Co is so great that it is impossible to read intermediate optical ds. By this method 1.7 Cu/ml. can be detd. Martin Liqueur

ca
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The mechanism of hydrolytic reaction of *p*-aroyl- β -bromo-acrylic acids. I. Zuprăvescu, R. Balca, and M. Petroveanu. *Analele Stiintifice. Al. I. Cuza' Iași Ser. I (N.S.)*, 4, 181-90 (1958).—The kinetic study of the hydrolysis of β -RC₆H₄-COBr:CHCO₂H (R = H, Me, OMe) showed that at 65.5° the nucleophilic substitution reactions of the halogen atom were of 1st order, which proved that under these exptl. conditions the intermediate COC⁺:CH was possible. The reaction order did not change with R which proved that at this temp. the conjugation of the olefinic bond was strong enough to produce decoupling of the conjugation π - π , where the halogen atom was attached. The values of the rate consts. diminished in the order R = H > Me > OMe (ρ = 0.81). From the reaction at 55.5° it was detd. that with R = H, the hydrolysis followed a precise S_N1 mechanism, while with R = Me, or OMe, the mechanism was probably a mixed one. This fact suggested that the formation of the cation was possible when R = H, while the other substituents inhibited this formation. At 45° with R = H, the reaction went by a mixed mechanism, while the other two hydrolyzed so slowly that the reaction could not be measured. The Hammett ρ factors for Me and OMe in *p*-substitution of benzoic esters, calcd. from sapon. reactions of these esters could be applied to this reactions. The Hammett const. ρ in this case was 0.81. A discussion of the mechanism was given.

Mella Pacch-Horowitz

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2919 (18)
4520 (9)

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RALEA, Radu; GRIGULE, Diana; FURUL, Nicușor

Electrochromatographic separation of some diastereoisomers and hydrolysis products of cobalt(II)diacetylacetonate complexes. Rev chimie Roum 9 no.11:709-714 N 1964.

1. "Petru Poni" Institute of Chemistry, Romanian Academy, Bucharest branch, 41 A Aleea Grigora Ghica Voia.

RALEA, Radu; BURLACH, George; GIBRISU, Diana

Oscillographic research with the jet electrode of zinc and copper amalgam in complex media. Pt. 2. Rev chimie Noua 9 no.11:703-707 N '64.

1. "Petru Poni" Institute of Chemistry, Romanian Academy, Iasi Branch, 41 A Aleea Grigore Ghica Voda.

PALEA, Radu

"Methodes d'analyse polarographique pour le Fe, Cu, Pb, Cd et Zn des
minerais complexes et des concentrates de Pb, de Zn et de Cu." Revue de Chemie,
Vol. 2, 1954, Bucharest.

RUMANIA / Physical Chemistry. Electrochemistry. B

Abs Jour: Ref Zhur-Khimiya, 1958, No 20, 66981

Author : Ralea R., Alexa-Petrovanu M., Papp A.

Inst : Not given.

Title : Oscellographic Investigation of the Reversibility of Reduction of the Tetrazole Salts into Formazanes on Mercury Electrode.

Orig Pub: Studii si cercetari stiit. Acad. RPR Fil. Iasi Chim., 1956 (1957), No 2, 131-143.

Abstract: For the purpose of clarifying the mechanism of the reversibility of electrochemical reduction of the tetrazole salts (t) into formazanes (F) with the use of Hg electrodes, this investigation was undertaken. By employing the Geyrovskiy-Foreit method, oscellographical (V vs t) curves were obtained for the following chlorides in Li₂SO₄ and LiOH solu-

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RUMANIA / Physical Chemistry. Electrochemistry. B

Abs Jour: Ref Zhur-Khimiya, 1958, No 20, 66981

Abstract: tions: triphenyltetrazole, 2-phenyl-3-(4'-carboxyphenyl)-5-hexyl-tetrazole (I) 2-phenyl-3-(4'-carboxyphenyl)-5-methyltetrazole, 2-phenyl-3-(4'-oxyphenyl)-5-(2''[oxyphenyl)-tetrazole (II), 2-phenyl-3-(4'-carboxyphenyl)-5-(4''-metoxyphenyl)-tetrazole, 2-phenyl-3-(2'-carboxyphenyl)-5-hexatrazole (III) and also for F obtained from I, II, and III. The curves obtained at low current densities are characterized with the presence of symmetrical steps which are attributed to adsorption and desorption phenomena. The curve obtained at high current densities also revealed the presence of the above steps (situated on the V axis) which

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Distr: 4E20(j)/
4E3d

7

The reduction of some chloronitrobenzenes at the mercury electrode. R. Balca, A. Mayer, and M. Olaru (Inst. chim. "Petru Poni", Iasi, Romania). *Acad. rep. populare Romine, Filiala Iasi, Studii cercetari stiint. Chim.* 10, 13-24(1959); cf. *CA* 48, 10414h.—The behavior of 2,4,6-trichloro-1-nitrobenzene (I), 2,4,5-trichloro-1,3-dinitrobenzene (II), 2,3,5,8-tetrachloro-1-nitrobenzene (III), and 2,3,5,6-tetrachloro-1,4-dinitrobenzene (IV) at mercury drop and jet electrodes, was studied polarographically and oscillographically. The substituents affected the half-step potential in the following way: (a) The 3-NO₂ in II led to a more positive half-step potential of the 1-NO₂; the effect of the 4-NO₂ in IV was still greater. (b) The half-step reduction potential of III is more neg. than that of I. Intermediate reduction steps occur in the dinitro compds. in alk. soln. In acid media the reduction is irreversible.

M. Ben Blieser

5
1- fuj (NS)
2

Ralea, Radu

✓ Polarographic determination of pyrocatechol alone and in presence of resorcinol and hydroquinone. Radu Cernătescu, Radu Răilescu, and Margareta Pop (Acad. rep. populare Române Inst. Chim. Univ. Iași). Acad. rep. populare Române, *Revista de Chimie*, 3, No. 1-4, 93-100 (1952). The soln. used in this detn. is made from $KAsO_4$ 0.01 N in excess, NH_4Cl 0.1M, and NH_4OH 0.01N at a pH of 8 to 9. The cathodic reduction of the complex combination As-pyrocatechol occurs at 0.8 v. Resorcinol and hydroquinone do not interfere. R. Mavrodineanu

3

8
0
0

PM

LPH

RALEA, R.

E-2

Country : Rumania
Category : Analytical Chemistry.

Abs. Jour. : Ref. Zaur - Khim., No 7, 1959 23010

Author : Ralea, R.; Modreanu, F.
Institut. : Rumanian Academy
Title : Photometric and Polarographic Methods of
Determining Cobalt and Potassium.

Orig Pub. : Studii si cercetari stiint. Acad. RPR Fil. Iasi
Chim., 1957, 8, No 1, 231-246; Rev. chim.
(Romin.), 1958, 3, No 1, 31-45

Abstract : For photometric and polarographic determination of Co^{2+} , and also for an indirect determination of K^+ , use is made of the reaction of oxidation of Co^{2+} to Co^{3+} in the presence of Na_2O_2 and Na-salt of sulfosalicylic acid (I). In this reaction is formed a stable soluble complex compound of a green color, the coloration of which is stable during > 1 hour. On photometric determination of Co the neutral solution, containing 0.2-1.6 mg Co, is diluted with water to ~30 ml, added 5 ml saturated solution of I, 10-20 mg solid Na_2O_2 , 0.1-0.2 solid Na_2SO_3 (to remove excess O_2), diluted with water to 50 ml and photometered with a blue light filter. Presence in the solution being analyzed of 10-fold amounts of
Card: 1/3

ZUGRAVESCU, I.; PETROVAMU, M.; RALEA, R.

Investigations concerning the preparation, structure and bacteriostatic properties of derivatives of E-acryl acrylic acids. Rev chimie 7 no. 1:633-643 '62.

1. Department of Organic Chemistry, "Al. I. Cuza" University Iasi.

RUMANIA / Physical Chemistry. Kinetics. Combustion. Explosions. Topochemistry. Catalysis. B-9

Abs Jour: Ref Zhur-Khimiya, No 8, 1959, 26481.

Author : Ralea, R. and Ungureanu, A.

Inst : Iasi University.

Title : The Co- and Cu-Catalyzed Oxidation of Sodium p-Aminosalicylate. A Kinetic Method for the Determination of Cu.

Orig Pub: An Stiint Univ Iasi, Sec 1, 3, No 1-2, 315-324 (1957) (in French with Rumanian and Russian summaries).

Abstract: Intermediate compounds formed during the cobalt (II) and Cu(II) catalyzed oxidation of p-aminosalicylate of Na have been detected and isolated. The rate increase produced by Co(II) is so great as to make the determination of this ion not feasible. By

Card 1/2

23

FOXA-RANG, Adina; RALSA, R.

Studies on the formation of complexes with amino acids.
Pt.4. Anal St Jassy I 10 no.2:145-148 '64.

1. Laboratory of Inorganic Chemistry, "Al. I. Cuza" University.

RALEA, R.; BERLANU, G.; GURGIU, D.

Oscillographic polarography of some complex cobaltidiacidtetramine ions. Chem zvesti 18 no.5/6:399-402 '64.

1. Institute of Chemistry, A. Cuza University, Iasi.

PALEA, Radoy KOSTOVA, Lucie

Polarography of thorium in the buffering and nonbuffering
mediums. Anal. Abstr. 10 no. 2: 219-221, '64.

1. Chair of Mineral and Analytic Chemistry, 191. 1. Sofia
University.

RALEA, R.; BURLACU, G.; GIURGIU, Diana

Polarography of the aquation reaction of some diacidotetramine
Co (III) complex ions. Rev chimie Roum 10 no.3:211-217 Mr '65.

1. "Petru Poni" Institute of Chemistry, Rumanian Academy,
Iasi. Submitted September 11, 1964.

LL861

S/081/62/000/024/020/073
B117/B186

17.1152

AUTHORS: Rálek, M., Yirú, P., Grubner, O., Beyer, H.

TITLE: Molecular sieves with color indication of the humidity content

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1962, 150,
abstract 24B1021 (Collect. Czechosl. Chem. Commun., v. 27,
no. 1, 1962, 142-146 [Ger.; summary in Russ.])

TEXT: A study was made of a molecular sieve (MS) of the type Ag-A (MSI) which had been obtained by mixing a MS suspension of the type Na-A (MSII) with an 0.2 N AgNO_3 solution at 25°C. In both MS the X-ray picture of the MSI with 100% substitution of Na^+ by Ag^+ shows identical crystal lattices. It has been found by thermal differential analysis that at 235°C MSI separates the sorbed water. At 560°C a second exothermal region can be observed which is probably connected with the recrystallization in the MSII lattice caused by the presence of Ag^+ . At 900°C a new endothermal region was obtained which is typical of MSI only. Under dynamic conditions, at

+

Card 1/2

S/081/62/000/024/020/073
B117/B186

Molecular sieves with ...

20°C, MSI like MSII adsorbs H_2O , CO_2 , NH_3 , CH_3OH , C_2H_5OH but does not adsorb C_6H_6 , $C_6H_{12}CHCl_3$ and C_2H_6CO . The H_2O adsorption was measured also with a quartz-spiral balance at 20°C under a water vapor pressure (p) of $5 \cdot 10^{-3} - 5 \cdot 10^{-1}$ mm Hg. The adsorption isotherms are similar for MSI with arbitrary Ag^+ content. If the Ag^+ content is increased its adsorptive power decreases. The originally yellow color of MSI of all compositions turns into a bright yellow at p $3 - 5 \cdot 10^{-2}$ mm Hg. At p $0.8 - 1 \cdot 10^{-1}$ mm Hg it turns pink and then grey white. At low p, MSI can be used as color indicator. [Abstracter's note: Complete translation.]

Card 2/2

RALEK, M.

CZECHOSLOVAKIA

CHMELEK, O.; RALEK, M.; ZELANOVA, A.

Institute of Physical Chemistry, Czechoslovak Academy of Sciences, Prague
(for all)

Prague, Collection of Czechoslovak Chemical Communications, No 2, Feb
1966, pp 633-638.

"Calculation of the mass-transfer coefficients by means of a more exact
theory of gas-solid chromatography. Part I: comparison of columns charged
with glass spheres and materials of high internal porosity."

NIKOLAJENKO, V.; RALEK, M.; KUCERA, E.; DANES, V.

Examination of the size of particles of metallic nickel and magnesium oxide in Ni-MgO-mixed catalysts. Coll Cz chem 27 no.10:2326-2335
● '62.

1. Institut für physikalische Chemie, Tschechoslowakische Akademie der Wissenschaften, Prag.

JIRU, Pavel; GRUBNER, Oto; RALEK, Milos

Preparation and properties of molecular type X sieves.
Chem prum 12 no.7:355-357 JI '62.

1. Ustav fyzikalni chemie, Coskoslovenska akademie ved,
Praha.

Rálek, M.

Investigation of processes at the dropping mercury ²

electrode with the aid of a discontinuously changing polarizing potential. II. Construction of switching gear. M. Rálek and L. Novák. Collection Czechoslov. Chem. Commun. 21, 248-50(1956)(in German).—See C.A. 49, 10091b. E. J. C.

NIKOLAJENKO, V.

CZECHOSLOVAKIA

no academic degree indicated

Institute for physical chemistry, Czechoslovak Academy of Sciences (Institut für physikalische Chemie, Tschechoslowakische Akademie der Wissenschaften), Prague

Prague, Collection of Czechoslovak Chemical Communications, vol 27, No 10, Oct 62, pp 2326-2335.

"Study of the Size of Particles of Metallic Nickel and Magnesium Oxide in Mixed Catalysts of Ni- Li_2O "

Co-authors:

PALEK, M. same as above

KUCERA, E. " " "

DANES, V. " " "

PHASE I BOOK EXPLOITATION

128
SOV/6246

Soveshchaniye po tseolitam. 1st, Leningrad, 1961.

Sinteticheskiye tseolity; polucheniye, issledovaniye i primeneniye
(Synthetic Zeolites: Production, Investigation, and Use). Mos-
cow, Izd-vo AN SSSR, 1962. 286 p. (Series: Its: Doklady)
Errata slip inserted. 2500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Otdeleniye khimicheskikh
nauk. Komisiya po tseolitam.

Resp. Eds.: M. M. Dubinin, Academician and V. V. Serpinskiy, Doctor
of Chemical Sciences; Ed.: Ye. G. Zhukovskaya; Tech. Ed.: S. P.
Golub'.

PURPOSE: This book is intended for scientists and engineers engaged
in the production of synthetic zeolites (molecular sieves), and
for chemists in general.

Card 1/28-3

Synthetic Zeolites: (Cont.)

SOV/6246

COVERAGE: The book is a collection of reports presented at the First Conference on Zeolites, held in Leningrad 16 through 19 March 1961 at the Leningrad Technological Institute imeni Lensovet, and is purportedly the first monograph on this subject. The reports are grouped into 3 subject areas: 1) theoretical problems of adsorption on various types of zeolites and methods for their investigation, 2) the production of zeolites, and 3) application of zeolites. No personalities are mentioned. References follow individual articles.

TABLE OF CONTENTS:

Foreword	3
Dubinina, M. M. Introduction	5

Card 2/12

5

Synthetic Zeolites: (Cont.) SOV/6246

Vinogradova, V. S., and L. S. Kofman. Investigation of the Molecular-Sieve Properties of Synthetic Zeolites 99

Mirskiy, Ya. V. The Heat of Wetting of Granular Zeolites 103

PRODUCTION OF ZEOLITES

Zhdanov, S. P., and N. N. Buntar'. Investigation of the Hydrothermal Synthesis Conditions and Properties of Sodium Zeolites 105

Tsitsishvili, G. V., and T. G. Andronikashvili. Synthesis and Some Adsorption Properties of Synthetic Zeolites 117

Iru, P., O. Grubner, and M. Raluk. Preparation and Properties of Synthetic Zeolites 129

Card 6/12 3/3

PALEK, M.

PALEK, M. Investigation of electrode processes on dropping mercury electrodes by means of intermittent varying polarizing voltage. II. Construction of the switch. In German. p. 243. Vol 21, No. 1, Feb. 1956. SBORNÍK ČESKOSLOVATSKÝCH KĚMICKÝCH PRÁCEŮ. COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS, Praha, CZECHOSLOVAKIA.

SOURCE: EAST EUROPEAN ACCESSIONS LIST (EEAL) VOL 6 NO 4 APRIL 1957

Investigation of processes at the dropping mercury electrode with the aid of a discontinuously changing polarizing potential. II. Construction of switching gear. *Sf. Rálek and I. Novák (Charles Univ., Prague). Chem. Zvesti. 667-8 (1953); cf. C.A. 49, 74186.*—The construction details and wiring diagrams of an improved type of switching gear from the preceding communication are given. P. Bráfelda

CZECH

RALEK, M.
CZECHOSLOVAKIA / Laboratory Equipment, Apparatus, Their Theory, Construction and Application. F

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60802.

Author : Pavel Jiru, ~~Milos Ralek~~, Karel Chabek.

Inst : -

Title : All-Glass Magnetic Pump for Gas Circulation.

Orig Pub: Chem. listy, 1957, 51, No 9, 1770-1772.

Abstract: An all-glass gas circulation laboratory pump is described; it is used at the study of reaction kinetics in gaseous phase. The electromagnets setting the piston into movement are controlled by an electronic device. The arrangement of electronic devices with thyratrons of electronic

Card 1/2

GLADEK, L. [Hládek, L.] ; RAJEK, M.

New design of a heavy-current regulator. Prib. i tekhn. eksp. no. 5:113-116
S-0 '60. (MIRA 13:11)

1. Institut fizicheskoy khimii Chekhoslotkoy Akademii nauk, Praga.
(Electric controllers)

Z/009/61/000/010/001/003
E112/E135

AUTHORS: Grubner, Otto, Rálek, Miloš, and Jírů, Pavel

TITLE: Preparation and properties of molecular sieves A

PERIODICAL: Chemický průmysl, No. 10, 1961, pp. 521-523

TEXT: Molecular sieves A are commercially not available in Czechoslovakia and the authors now describe laboratory methods for their preparation. Procedures are based on available literature. Compounds prepared were: Sieve 4 A (sodium-aluminosilicate), Sieve 5 A (calcium-aluminosilicate) and Sieve 3.8 A (potassium-aluminosilicate). The produced compounds were examined by the following methods. 1) X-ray powder photographs according to Debye—Scherrer. 2) Quantitative analysis (Al_2O_3 and CaO determined with Complexons). 3) Densities (determined by pycnometer with helium and mercury). 4) Absorption properties. Examples of absorbed compounds are listed for each type of molecular sieve. Properties of the domestic and foreign materials were found to be identical. The authors have also undertaken the preparation and study of molecular sieves 10 X and 13 X, details of which will be published in a future paper.

Card 1/2

Preparation and properties of

Z/009/61/000/010/001/003
E112/E135

Acknowledgments are expressed to Messrs. Svoboda, Kučera, Habesberger, Schürer, Černý, Jakubičková, Jirátorá and Jiříčková, for their assistance. There are 1 table and 16 references: 6 Soviet-bloc and 10 non-Soviet-bloc. The four most recent English language references read:

Ref.2: R.M. Barrer. British Chem. Eng. 1 (1959).

Ref.4: R.M. Barrer, J.W. Baynham, F.W. Bultitude, W.M. Meier. J. Chem. Soc. 195 (1959).

Ref.7: R.A. Labine, Chemical Engng 104 (1959).

Ref.11: L. Broussard, D.P. Schoemaker. J. Am. Chem. Soc. Vol.82, 1041 (1960).

ASSOCIATION: Ústav fyzikální chemie ČSAV, Praha
(Institute of Physical Chemistry, ČSAV, Prague)

SUBMITTED: March 28, 1961

Card 2/2

HLADEK, Ladislav, inz.; RALEK, Milos, dr.

Combined control of electron tubes by current and voltage signals.
Slaboproudy obzor 22 no.6:355-357 Je '61. (EEAI 10:9)

1. Ustav fyzikalni chemie Ceskoslovenske akademie ved, Praha.

(Electron tubes)

HLADEK, Ladislav, inz.; RALEK, Milos, dr.

A current stabilizer based on the control of thermionic tubes by a current signal. Slaboproudý obzor 21 no.7:418-421 J1'60. (EEAI 10:1)

1. Ustav fyzikalni chemie Ceskoslovenske akademie ved.
(Voltage stabilizers)

85356

9.2540 (1020, 1048, 1159)

S/120/60/000/005/028/051
E032/E314

AUTHORS: Gladek, L. and Ralek, M.

TITLE: New Type of High-current Stabiliser

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No. 5,
pp. 113 - 116

TEXT: The stabilisation of direct currents can be achieved by two methods. In the first method (Sommers et al, Ref. 1) the error signal is produced by comparing the voltage drop across a known resistor R_c with the emf of a standard cell (Fig. 1).

In the case of large currents this is difficult because it is difficult to maintain the resistance R_c at a constant value.

The second method (Fig. 2) is more convenient in this respect. Here, the error signal is produced by comparing the magnetic field of a solenoid which carries the current to be stabilised with the magnetic field of a standard permanent magnet, as described by Peregud (Ref. 2). The device described in the present paper is of the second type. The particular feature of this device is the use of an ordinary electronic tube placed directly in the magnetic field of the solenoid as the source

Card 1/4

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S/120/60/000/005/028/051
E032/E314

New Type of High-current Stabiliser

of the error signal. The stabiliser whose design circuit is shown in Fig. 3 employs two symmetrically connected pentodes. Each of these pentodes is placed in a coil. The two coils are identical and carry the current to be stabilised. One of the coils is placed in the field of the permanent magnet which produces an induction B_{II} in the region of the tube. The current flowing through the coils produces in each of them an induction B_I . The field due to the coil is directed in opposition to the field of the magnet. In this way, one of the pentodes is in an induction field $B_{II} - B_I$ while the other is in an induction field of B_I . In the stabilisation of the current the decisive factors are the absolute magnitudes of these two quantities. If an induction B_0 corresponds to a current I_0 , then it is convenient to choose $B_{II} = 2B_0$. When the current I_0 passing through

Card 2/4

85356

S/120/60/000/005/028/051
E032/E314

New Type of High-current Stabiliser

the coils changes by ΔI , then B_0 changes by some quantity ΔB . One of the pentodes will therefore "see" and induction of $|B_0 + \Delta B|$, while the other will "see"

$|B_{\Gamma} - (B_0 + \Delta B)| = |2B_0 - B_0 - \Delta B| = |B_0 - \Delta B|$. Thus, when the current changes by ΔI , the anode current of one of the tubes will increase, while that of the other tube will decrease. As a result, there will be a constant voltage difference between the anodes and the polarity of this difference will depend on the sign of ΔI . This error signal is then amplified and the output is used to re-establish the original value of the current through the coils. The device has been used to stabilise the supply current of a 2 kW electromagnet designed for studies of thermomagnetic properties of ferromagnetics. It was found that the device could be used to stabilise currents up to 5 A to within 0.1%/hour.

✓

Card 3/4

85356

S/120/60/000/005/028/051
E032/E314

New Type of High-current Stabiliser

There are 5 figures and 4 references: 1 English, 1 Soviet and 2 Czech.

ASSOCIATION: Institut fizicheskoy khimi Chekhoslovatskoy Akademii nauk, Praga (Institute of Physical Chemistry of the Czechoslovakian Academy of Sciences, Prague)

SUBMITTED: July 13, 1959

Card 4/4

RALEK, M.

Reports to be presented at the 2nd Intl Congress on Catalysis, Paris, France, 4-9 Jul '60.

Czechoslovakia

- FRANZY, L., and BAZANT, V. - "The mechanism of the dehydrogenation of alcohols on alumina" (Section II)
- DAVIS, V. - "Study of the characteristics of powder catalysts during their formation. Nickel catalysts." (Section II)
- JIRI, C. - "Release of radioactive inert gases from surface labeled platinum during catalytic and surface reactions" (Section II)
- JIRI, P., and JIRI, V. - "The influence of alkali metal additives on the activity of vanadium pentoxide as a catalyst of oxidation of sulfur dioxide" (Section II)
- BRAN, O., and BAZANT, V. - "Investigation of a new method of the formation of catalysts" (Section II)
- ELIEN, K. - "Contribution on the mechanism of chemisorption of carbon monoxide and carbon dioxide on nickel oxide" (Section II)
- KUCIANSKI, V., and DAVIS, V. - "Contribution to the clarification of reasons for catalytic activity on Ni₂O₃ mixed catalytic agents" (Section II)
- RYJAVEK, J. - "Thermal decomposition of some oxalates" (Section II)
- KOBEK, V., and DZIK, Z. - "Adsorption on evaporated metal films" (Section II)
- MAJER, E. - "Magnetic investigations of nickel based catalysts" (Section II)

Bulgary

- KIUCHI, T., KAJIM, F., de JUREZ, J. - "The oxidation of ethylenic vapours in a fluidized bed of ferric oxide" (Section III)
- QAI, DESAO, SIKHAI, A. (sic), F., and DUTTA, P. - "Tracer studies on catalytic styrene oxidation" (Section I)
- SHARU, Z. G., and SULLIVAN, P. - "Influence of the defect structure of support on the activity of catalyst" (Section II)
- MAJER, Z. G., and MAJER, P. - "Mechanism of the influencing of nitric oxide in the thermal decomposition of propionic aldehyde" (Section I or II)

RAJEK, M; CARICAR, J; SWOBODA, J.

Evaluation of the magnetic separation of roasting products from low-percentage iron ores.

P. 606. (CHEMICKY PRUMYSL) (Praha, Czechoslovakia) Vol. 7, no. 11, Nov. 1957

30: Monthly Index of East European Accession (EEAI) IC, Vol. 7, No. 5, May 1958

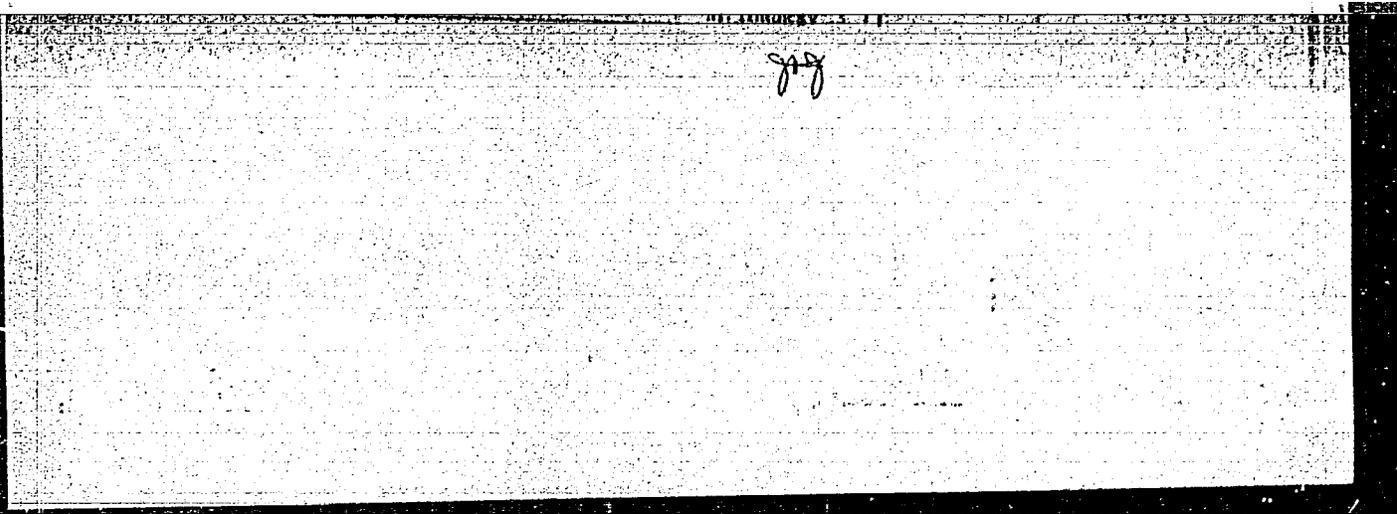
RAMEL, J.; PAVCINA, J.

"Investigation of Electrode Processes at the Drooping Mercury Electrode with the Aid of a Discontinuously Changing Polarizing Potential. I. Proof of Adsorption; Identification of Electrolytic Products", P. 806, (CHEMIZNE LISTY, Vol. 48, No. 6, June 1954, Praha, Czech.)

CC: Monthly List of East European Accessions (MEM), 10, Vol. 4, No. 3, March 1955, Encl.

RALEK, MILOS

All glass magnetic pump for gas circulation
by Ralek, and H. [unclear]



RÁBEK, MILOS.

Investigation of processes at the dropping mercury electrode with the aid of a discontinuously changing polarizing potential. I. Proof of adsorption; identification of electrolytic products. Mirko Kaloupek and Milos Rábek (Karlova Univ., Prague). *Chem. Listy* 48, 802 (1954).
By using a 2-way relay controlled by an electronic circuit, an improved switch was constructed and combined with a polarograph and an auxiliary potentiometer. With this app. it was found that the switched wave increased considerably if the system was reversible and if at least one of the forms was adsorbed on the electrode, and that the increase of the switching-over frequency increased the current. With some irreversible processes a wave was obtained of the reaction product. Reaction products of the trithionate and tetrathionate ions and of hexachlorocyclohexane were identified. The reaction mechanism is discussed. H. Rábek. BB

RALEK, M. ; NOVAK, L.

Investigation of electrode processes at the dropping mercury electrode with the aid of the discontinuously changing polarizing potential. II. Construction of switch-gear. p. 557

CHEMICKÉ LISTY (Ceskoslovenska akademie ved. Ceskoslovenska spolecnost chemicka) Praha, Czechoslovakia. Vol. 49, no. 4, Apr. 1955

Monthly List of East European Accessions (EEAI) EC, Vol. 9, no. 1/1960
Jan
Uncl.

DEL BUONO, Manfredi [deceased]; POPCIC, Lazar,; RALETIC, Zvonko;
RUTTIMANN, Alois

Cavography. Med. pregl. 17 no.7:347-354 '64

1. Centralni dijagnosticki rendgen institut, Ciriš (Direktor:
Prof. dr. Josef Wellauer) ; Zavod za radiologiju Klinicke bol-
nice u Novom Sadu (Nacelnik: Prof. dr. Milivoj Dedic).

IVANOV, D.; GOCEV, V.; RALEVA, M.

Extraction of potassium from the eruptive rocks of the village Svidnya,
region of Sofia. Godishnik khim ~~tech~~ 7 no.1/2:1-12 '60 [publ. '61].

OLEJ, S. NOVÁK

PALEK, S.

Institute of Physical Chemistry of the Czechoslovak Academy
of Sciences, Prague

Prague, Collection of Czechoslovak Chemical Communications,
No 10, 1965, pp 3411-3414

"The Effect of Ion Exchange on the Catalytic Activity of
Type X Molecular Sieves."

CZECHOSLOVAKIA

ORUBNA, O; RALEK, M; RUCKA, K

Institute of Physical Chemistry, Czechoslovak Academy
of Sciences, Prague - (for all)

Prague, Collection of Czechoslovak Chemical Communications,
No 7, July 1966, pp 2629-2638

"Calculation of the mass transfer coefficients by means
of a more exact theory of gas-solid chromatography. Part 2:
Variance and asymmetry of the chromatographic curves in the
system carbon dioxide-activated charcoal."

STAJIC, S.; STOJANOVIC, D.; MILOVANOVIC, A.; Tehnicki saradnik:
BAJEVIC, Z.

Effect of preventive application of protective ointment for
hands on the effectiveness of decontamination of the skin
of experimental animals contaminated by radioactive substances.
Vojnosanit. pregl. 22 no.11:679-681 N '65.

I. Institut "Boris Kidric" u Vinci; Medicinska zastita.

STAJIC, C.; ILIOVANOVIC, A.; STOKANOVIC, B.; SAJINIC, Z. Medicinska zastita

Decontamination of the skin of laboratory animals contaminated by radionuclides from fission product complexes. Vojnosanit. pregl. 22 no.7/8:446-449 J1-Ag '65.

1. Institut "Boris Kidric" u Vindji, Medicinska zastita.

STAJIC, J.; MILOVANOVIC, A.; STOJANOVIC, D.; PALEVIC, Z., tehnicki saradnik

Decontamination of the skin of laboratory animals by means of
decontaminating agents without the use of water. Vojnosanit.
pregl. 22 no.9:541-543 S '65.

1. Institut "Boris Kidric" u Vinci, Medicinska zastita.

CHUMAKOV, M.P.; GAGARINA, A.V.; LASHKEVICH, V.A.; DZAGUROV, S.G.; HAL'F, N.M.;
FLEYER, G.P.; VOROSHILOVA, M.K.; ROBINZON, I.A.

Comparative characteristics of living poliomyelitis vaccine prepared
at the Institute of Poliomyelitis Research of the Academy of Medicine
of the U.S.S.R. and Sabin's vaccine from attenuated strains of the
poliomyelitis virus. Vop.virus. 4 no.5:533-537 S-0 '59. (MIRA 13:2)

1. Institut po isucheniyu poliomiyeleta AMN SSSR, Moskva.
(POLIOMYELITIS, immunol.)

CHUMAKOV, M.P.; VOROSHILOVA, M.K.; DROZDOV, S.G.; DZAGUROV, S.G.; LASHKELISHVILI,
V.A.; MIRONOVA, L.L.; RALIF, N.M.; GAGARINA, A.V.; DOBROVA, I.N.;
ASHMARINA, Ye.Ye.; SHIRYAK, G.A.; FLEKER, G.P.; TOL'SKAYA, Ye.A.;
SOKOLOVA, I.S.; EL'BERT, L.B. (Moskva); SINIAR, K.M. (L'vov)

Some results of the work in mass immunization of the population of
the Soviet Union against poliomyelitis with live vaccine from Sabin
strains. Vest. AMEi SSSR 16 no.4:30-43 '61. (MIRA 15:5)

1. Iz Instituta poliomyelita i virusnykh entsefalitov AMEi SSSR.
(POLIOMYELITIS VACCINE:) (POLIOMYELITIS--PREVENTION)

LYAMPERT, I.M.; GALACH'YANTS, O.P.; AGABABOVA, E.R.; RAL'F, N.M.;
SMIRNOVA, M.N.; YARESHKO, N.T.; BOLOTINA, A.Yu.; SOSHKINA, N.M.

Diagnostic significance of certain immune reactions in rheumatic
fever. Zhur.mikrobiol.epid.i immun. 32 no.3:35-43 Mr '61.
(MIRA 14:6)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR,
fakul'tetskoy terapevticheskoy kliniki I Moskovskogo ordena Lenina
meditsinskogo instituta imeni Sechenova i revmatologicheskogo
kabineta Leningradskogo rayona Moskvu.
(RHEUMATIC FEVER) (ANTHEMOLYSINS)
(HYALURONIDASE)

CHUMAKOV, M.P.; VOROSHILOVA, M.K.; DZAGUROV, S.G.; DROZDOV, S.G.;
LASHKEVICH, V.A.; MIRONOVA, L.L.; RAL'E, N.M.; SINYAK, K.M.;
BARTOSHEVICH, Ye.N.; VASIL'YEVA, K.A.; GAGARINA, A.V.;
GRACHEV, V.P.; ZHEVANDROVA, V.I.; TARANOVA, G.P.; KOROLEVA, G.A.;
KUKAYN, R.A.; ROBINZON, I.A.; TYUFANOV, A.V.; EL'BERT, L.B.

Results of mass immunization with live poliomyelitis vaccine
and the prospects for eradication of this disease. Vest.
AMN SSSR 18 no.6:5-15 '63. (MIRA 17:1)

RALJEVIC, S.

~~Raljević, Sefkida.~~ Sur une droite et sur un segment caractéristique dans les polygones des zéros des polynômes. Srpska Akad. Nauka. Zbornik Radova 35, Mat. Inst. 3, 89-94 (1953). (Serbo-Croatian. French summary)

Let the polynomial $P(s)$ have zeros s_j of multiplicity m_j ($j=1, 2, \dots, p$) and set

$$P_0(s) = P_n'(s) / \prod_{j=1}^p (s - s_j)^{m_j-1} = a_n \prod_{j=1}^p (s - s_j)^{m_j}$$

Then the points

$$f_1 = \sum_{j=1}^p m_j s_j / \sum_{j=1}^p m_j, \quad f_2 = \sum_{j=1}^p s_j / p, \quad f_1^* = \sum_{j=1}^p m_j / s_j / (p-1)$$

lie on a line and $pf_2 = (p-1)f_1^* + f_1$. In the special case $p=3$, a number of relationships are deduced which according to the author indicate that the segment joining f_1 and f_1^* stands as the generalized Euler segment for the triangle with vertices s_j and weights m_j ($j=1, 2, 3$). The reviewer cannot agree since $f_1 = f_1^*$ when $m_1 = m_2 = m_3$. Further, the author's assertion that $f_1 = f_2$ only if $m_1 = m_2 = \dots = m_p$ is erroneous as the example $P(x) = (x^2 - 1)^2 x^2$ shows.

A. W. Goodman (Lexington, Ky.).

RÁLKOVÁ, J.

measurement of low activities in water. II. Construction of cell counters. Jarmila Rálková and Jaroslav Slunčíčko (Czech. Acad. Sci., Prague). *Jaderná energie* 6, 235-8 (1960); Ref. CA 54, 13505h. — A counter was constructed for direct measurement of liquid samples of sp. activity $\sim 10^{-8}$ $\mu\text{c./ml.}$ with an error of $\pm 12\%$. The liquid is pipetted into a flat cell made of plastic scintillation material. The cell is placed between 2 photomultipliers connected in coincidence. The counter is surrounded by a ring of Geiger-Müller counters connected in anti-coincidence with the inner counter, in order to eliminate cosmic rays. The method was applied to river and drinking water and reactor-cooling water. Activities down to 10^{-8} $\mu\text{c./ml.}$ could be detected by using partially evapd. samples. H. Newcombe

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AUTHOR: Rálková, Jarmila

TITLE: Measuring low activities in water - IV

PERIODICAL: Jaderná energie, no. 11, 1961, 374-377

TEXT: The article briefly discusses problems encountered in measuring the radioactivity of water and lists tables with radioisotopes which can be found in waste, river, and drinking water. Most popular is the so-called "evaporation" method where the activity of a concentrate is measured with end-window GM-counters. This method allows the geometric, absorptive, and self-absorptive factors to be determined, but allows no conclusion as to the isotope composition. Some authors relate the measured activities to certain standards, such as long-lived isotopes Sr-90 + Y-90, Cs-137 + Ba-137, K-40, etc; however, this method also of determining absorption and self-absorption is subject to an error of 50% and more. Using

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internal counters (2π counters, cell-type scintillation counters), the determination of the absorption factor can be eliminated, but there still remains the error caused by inadequate evaluation of self-absorption. Since long-lived contaminations are of major interest, separation methods based on chemical precipitation were developed for Sr and Cs. However, these methods are very tedious and are not suitable for serial checks. More advantageous are liquid scintillators on a dioxane basis which can be mixed directly with the specimen of contaminated water. Such dioxane scintillators are currently being developed by the Tesla-Přemyslení Plant. Further progress is expected when scintillation counters are equipped with glass cells and use liquid scintillators. Methods so far described are suitable for measuring beta-energies, but contaminated water can also contain alpha-emitters which must be measured. Determination of Ra was eliminated, since its gaseous decay product Radon can be separated from the water and measured

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Measuring low activities...

either directly (according to Běhounek) in a ionization chamber, or in a special chamber (developed by Doctor Klumpar of the ÚJV and modified by Engineer Kulka of the Tesla-Přemyšlení) where Radon-decay products are collected on an electrode and measured with a special scintillation probe. Determination of other alpha-emitters is complicated by the fact that a large amount of radiation is absorbed by the bulk of the evaporation concentrate. It is, therefore, recommended spreading the concentrate over a large area and measuring the activity with a large-surface alpha probe, developed by the Tesla-Přemyšlení Plant. In conclusion, the author states that present methods for measuring low radioactivities of contaminated water do not reach the required accuracy. For drinking water, Czechoslovak Standard ČSN 567900 permits a beta activity of $5.3 \cdot 10^{-12}$ curies/liter and an alpha activity of $2.6 \cdot 10^{-13}$ curies/liter; however, the evaporation method allows such activities to be determined with an accuracy varying in the magnitude of one order. (Technical Editor: V. Kačena). There are

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